

## REMARKS

The present application claims priority of U.S. Patent No. 5,735,348, which had a filing date of October 4, 1996, i.e., several years before the filing date of U.S. Patent No. 6,173,777 on February 9, 1999. The chain of priority is listed above as an amendment to provide the first sentence of this application.

U.S. Patent No. 5,735,348 describes a casing fill up and circulation tool (i.e. a tool for providing fluid flow into the casing and having a seal for sealing contact with the casing without the need for threadably connecting the tool with the casing), such that the fill up and circulation tool provides a valve that opens a passageway for fluid flow through the tool into the casing in response to inserting the tool into the casing. The valve automatically closes upon removal of the tool from the casing.

An interference is called for because U.S. Patent No. 6,173,777 shows and also broadly claims a fill up and circulation tool with a valve that opens upon insertion of the tool in the casing and closes upon removal.

The mechanical structure and operation at issue are clearly shown in Fig. 3 and FIG. 4 of the parent U.S. Patent No. 5,735, 348, ('348) which figures are identical or substantially identical to FIG. 3A and FIG. 4 of the present application.

Claim 1 of '777 very broadly claims any type of valve to perform this function, and therefore also reads on the valve structure taught in Applicants parent case, U.S. Patent No. 5,735, 348. Therefore, Applicant has added claims 31 and 32 which correspond identically to

claims 1 and 2 of '777.

An interference exists if at least one claim from each of a patent and an application would have anticipated or rendered obvious the subject matter of the other. M.P.E.P. 2301.02. Claim 1 of the '777 and claim 31 of the present application are identical and therefore clearly satisfy this criteria for an interference to exist.

Regulation 37 CFR 1.607 requires the following action by an applicant seeking to have an interference declared:

1. Identifying patent. This is been done by identifying Patent No. 6,173,777.
2. Presenting a proposed count. The proposed count is newly-added claim 31.
3. Identifying at least one claim in the patent corresponding to the proposed count.  
Claim 1 of 6,173,777 corresponds exactly to the count.
4. Presenting at least one claim corresponding to the proposed count or identifying at least one claim already pending in its application that corresponds to the proposed count. Claim 31 of the present application corresponds exactly to the count.
5. Applying the terms of any application claim.
  - (i) Identified as corresponding to the count. This requirement is satisfied as follows:

A casing or tubular fill up and circulating tool (tool 46 shown in Fig. 1 and Fig. 2 of the application), comprising:

a body (mandrel 19 of Fig. 3A) having an internal passage (flow path 19a of Fig. 3A of the application) leading to at least one outlet port (bottommost port 35a of Fig. 3A and/or ports 19c of Fig. 3A near the bottom of mandrel 19) adjacent a lower end of said body (mandrel 19 of Fig. 3A of the application);

a seal (packer cup 29 of Fig. 3A and Fig. 4 of the application) mounted externally to said body (mandrel 19 of Fig. 3A and Fig. 4 of the application);

a valve (sleeve 26 in combination with mandrel 19, outlets 19c in mandrel 19, and plunger 40, which components cooperate to selectively direct/prevent fluid flow from flow path 19a into the casing 32 through outlets 19c ) in said internal passageway (flow path 19a of Fig. 3A,) said valve movable between an open and a closed position (Fig. 4 shows sleeve 26 in an open position and Fig. 3A shows sleeve 26 in a closed position) in response to insertion, at least in part, and substantial removal of said body (mandrel 19), respectively, as to the casing or tubular (casing 32 of FIG. 3a).

Therefore in operation, when packer cup 29 engages the inner surface of casing 32 during insertion, the force created causes sleeve 26 to move upwardly to uncover ports 19c as shown in Fig.4. As mandrel 19 is removed from the casing, the force by packer cup 29 may move sleeve 26 to cover or close off ports 19c, and in any event, a biasing spring 25 biases sliding sleeve 26 to cover or close off ports 19c upon removal of mandrel 19 from the casing

as shown in Fig. 3A.

(ii) not previously in the application to the disclosure of the application. The newly-added Claim 31 has not previously appeared as a claim, except to the extent that various embodiments and components that describe Applicants tool would have been operable for performing the presently claimed functions and features.

(6) Explaining how the requirements of 35 U.S.C. 135(b) are met, if the claim presented or identified under paragraph (a)(4) of this section was not present in the application until more than one year after the issue date of the patent. The present application is being filed on January 15, 2002, which is before one year after the issue date of U.S. Patent 6,173,777 on January 16, 2001.

The Applicants therefore respectfully request that an interference be declared between at least claims 31 and 32 of the present application, and at least claims 1 and 2 of U.S. Patent No. 6,173,777 whereupon claim 31 may be used as the count in such interference.

Respectfully submitted,



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*Replacement Sheets*

31. A casing or tubular fill up and circulating tool, comprising:

a body having an internal passage leading to at least one outlet port adjacent a lower end of said body;

a seal mounted externally to said body;

a valve in said internal passage, said valve movable between an open and a closed position in response to insertion, at least in part, and substantial removal, of said body, respectively, as to the casing or tubular.

32. The tool of claim 31, further comprising:

an actuator on said valve extending externally to said body where it can engage the casing or tubular on insertion, at least in part, of said body.

33. The tool of claim 32, wherein said actuator further comprises:

a sliding sleeve moveable with respect to said body for covering and uncovering said at least one outlet port, said seal being mounted to said sliding sleeve such that contact of said seal with said casing or tubular during insertion of said body into said casing or tubular moves said sleeve to uncover said at least one outlet.

34. A casing or tubular fill up and circulating tool, comprising:

a body having an internal passage; and

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a seal mounted externally to said body;

a valve for said internal passage, said valve movable between an open and a closed position in response to insertion, at least in part, and removal, at least in part, of said body, respectively, as to the casing or tubular.

35. The tool of claim 34, further comprising:

an actuator on said valve extending externally to said body where it can engage the casing or tubular on insertion, at least in part, of said body.

36. A casing fill up and circulation apparatus, comprising:

a body having a first port and a second port to provide communication with an interior of said casing and being insertable into said casing;

a seal for said body which is engageable with said casing when said body is inserted in the casing;

a first valve for controlling fluid through said first port; and

a second valve for controlling fluid through said second port.

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37. A method of filling and circulating casing or tubular, comprising:  
lowering a body having an external seal and a passage therethrough at least in part into  
said casing or tubular;

providing a valve for said passage; and

opening said valve as a result of said lowering.

38. The method of claim 37, further comprising:  
engaging an actuator with said casing to effect said opening.

39. The method of claim 37, further comprising:  
engaging said external seal with the casing to effect said opening.

40. A method of filling and circulating casing or tubular, comprising:  
lowering a body having an external seal and a passage therethrough at least in part into  
said casing or tubular;

providing a valve for said passage;

providing an actuator for said valve mounted externally to said body; and

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operating said valve by engagement of said actuator with said casing or tubular.

41. The method of claim 40, further comprising:

mounting said external seal on a sliding sleeve to provide said actuator such that engagement of said seal with said casing or tubular during said insertion opens said valve.

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a seal mounted externally to said body;

a valve for said internal passage, said valve movable between an open and a closed position in response to insertion, at least in part, and removal, at least in part, of said body, respectively, as to the casing or tubular.

35. The tool of claim 34, further comprising:

an actuator on said valve extending externally to said body where it can engage the casing or tubular on insertion, at least in part, of said body.

36. A casing fill up and circulation apparatus, comprising:

a body having a first port and a second port to provide communication with an interior of said casing and being insertable into said casing;

a seal for said body which is engageable with said casing when said body is inserted in the casing;

a first valve for controlling fluid through said first port; and

a second valve for controlling fluid through said second port.

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37. A method of filling and circulating casing or tubular, comprising:

lowering a body having an external seal and a passage therethrough at least in part into said casing or tubular;

providing a valve for said passage; and

opening said valve as a result of said lowering.

38. The method of claim 37, further comprising:

engaging an actuator with said casing to effect said opening.

39. The method of claim 37, further comprising:

engaging said external seal with the casing to effect said opening.

40. A method of filling and circulating casing or tubular, comprising:

lowering a body having an external seal and a passage therethrough at least in part into said casing or tubular;

providing a valve for said passage;

providing an actuator for said valve mounted externally to said body; and

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operating said valve by engagement of said actuator with said casing or tubular.

41. The method of claim 40, further comprising:

mounting said external seal on a sliding sleeve to provide said actuator such that engagement of said seal with said casing or tubular during said insertion opens said valve.

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